

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Serial No. 10/604,444

Amendments to the Claims:

1. (original) An electronic grip frame for a paintball marker, comprising:
a frame;
a trigger movably connected to the frame; the trigger being movable between a resting position and a firing position; the trigger including an optical interface portion, which is movable with the trigger, and a finger contact side and a rear side opposite thereof;
an optical sensor mounted onto the frame proximal to the optical interface portion of the trigger and being capable of sensing movement thereof;
an electrical output connected to the optical sensor; the electrical output being capable of generating a first electrical signal indicative of the trigger at the resting position and a second electrical signal indicative of the trigger at the firing position.
2. (original) The electronic grip frame of Claim 1, wherein the optical interface portion of the trigger is a prong emanating therefrom.
3. (original) The electronic grip frame of Claim 2, wherein the prong emanates from the rear side of the trigger.
4. (original) The electronic grip frame of Claim 2, wherein the optical sensor includes a light emitter and a light detector to detect light from the light emitter; the optical sensor being capable of sensing a break in passage of light between the light emitter and the light detector; the prong being movable between a position not between the light emitter and the light detector and a position between the light emitter and the light detector.
5. (original) The electronic grip frame of Claim 1, further comprising:
a first adjustable stop connected to the trigger to limit positioning of the trigger relative to the frame when the trigger is in the resting position.

Serial No. 10/604,444

6. (original) The electronic grip frame of Claim 1, further comprising:
a second adjustable stop connected to the trigger to limit positioning of the trigger relative to the frame when the trigger is in the firing position.
7. (original) The electronic grip frame of Claim 1, further comprising:
means for biasing the trigger into the resting position.
8. (original) The electronic grip frame of Claim 7, wherein the means for biasing is a ferrous set screw mounted in the trigger and a magnet attached to the frame at a location aligned with the ferrous set screw.
9. (original) The electronic grip frame of Claim 1, wherein the frame and trigger are made of metal.
10. (original) The electronic grip frame of Claim 1, wherein the frame and the trigger are made of plastic.
11. (original) The electronic grip frame of Claim 1, wherein the trigger is pivotally connected to the frame.
12. (original) An electronic grip frame for a paintball marker, comprising:
a frame;
a trigger movably connected to the frame; the trigger being movable between a resting position and a firing position; the trigger including a non-contact interface portion, which is movable with the trigger, and a finger contact side and a rear side opposite thereof;
a non-contact sensor mounted onto the frame proximal to the non-contact interface portion of the trigger and being capable of sensing movement thereof;
an electrical output connected to the non-contact sensor; the electrical output being capable of generating a first electrical signal indicative of the trigger at the resting position and a second electrical signal indicative of the trigger at the firing position.

Serial No. 10/604,444

13. (original) The electronic grip frame of Claim 12, wherein the non-contact sensor is an optical sensor.
14. (original) The electronic grip frame of Claim 13, wherein the non-contact interface portion of the trigger is a prong emanating therefrom.
15. (original) The electronic grip frame of Claim 14, wherein the prong emanates from the rear side of the trigger.
16. (original) The electronic grip frame of Claim 14, wherein the optical sensor includes a light emitter and a light detector to detect light from the light emitter; the optical sensor being capable of sensing a break in passage of light between the light emitter and the light detector; the prong being movable between a position not between the light emitter and the light detector and a position between the light emitter and the light detector.
17. (original) The electronic grip frame of Claim 12, further comprising:
a first adjustable stop connected to the trigger to limit positioning of the trigger relative to the frame when the trigger is in the resting position.
18. (original) The electronic grip frame of Claim 12, further comprising:
a second adjustable stop connected to the trigger to limit positioning of the trigger relative to the frame when the trigger is in the firing position.
19. (original) The electronic grip frame of Claim 12, further comprising:
means for biasing the trigger into the resting position.
20. (original) The electronic grip frame of Claim 18, wherein the means for biasing is a ferrous set screw mounted in the trigger and a magnet attached to the frame at a location aligned with the ferrous set screw.
21. (original) The electronic grip frame of Claim 12, wherein the frame and trigger are made of metal.

Serial No. 10/604,444

22. (original) The electronic grip frame of Claim 12, wherein the frame and the trigger are made of plastic.

23. (original) The electronic grip frame of Claim 12, wherein the trigger is pivotally connected to the frame.

24. (original) The electronic grip frame of Claim 12, further comprising:
a microprocessor electrically connected to the electrical output of the non-contact sensor;

a sear solenoid electrically connected to the microprocessor;

a hammer mechanically connected to the sear solenoid;

a pin valve mechanically connected to the hammer; and

a source of gas fluidly connected to the pin valve.

Claims 25-33 (canceled)